

*AMENDMENTS TO THE CLAIMS*

Claim 1 (Cancelled).

2. (Currently Amended) The metal electrode and circuit card according to claim ~~4~~ 7, wherein the metallic element which produces the eutectic reaction with tin is indium.

3. (Currently Amended) The metal electrode and circuit card according to claim ~~4~~ 7, wherein the temperature at which the metallic element of the second layer produces the eutectic reaction with tin is no higher than 221°C.

4. (Currently Amended)) The metal electrode and circuit card according to claim ~~4~~ 7, wherein the ~~wire~~ wiring layer located on the substrate contains aluminum as a principal constituent, and the metallic layers of ~~said the~~ metal electrode further include a third layer containing copper as a principal constituent, a fourth layer containing gold as a principal constituent, and a fifth layer containing nickel as a principal constituent, lying in this order in the direction of the substrate from the first layer, between the second layer and the ~~wire~~ wiring layer.

5. (Previously Presented) The metal electrode according to claim 4, wherein the first, second, third, fourth, and fifth metallic layers are formed by electroless plating.

6. (Currently Amended) A method of joining a metal electrode ~~on a wire, which is located on a substrate,~~ to a circuit card having a joining surface of a material which diffuses ~~into~~ with tin when heated, ~~said metal electrode comprising:~~

forming a metal electrode comprising multiple metallic layers disposed on a substrate and including at least a first layer and a second layer lying, from wherein

the first layer is the metallic layer most remote from the substrate, includes an outermost surface of ~~said the~~ metal electrode ~~toward the substrate, in this order, wherein the first layer contains,~~ and contains tin as a principal constituent,

the second layer is in contact with the first layer and contains a metallic element which produces ~~an~~ a eutectic reaction with tin, and

the melting point of the first layer is higher than the melting point of the second layer, ~~said method comprising:~~

forming a circuit card by depositing a wiring layer on a base, the wiring layer having a joining surface of a material which diffuses with tin when heated;

bringing ~~said~~ the first layer of the metal electrode into contact with the joining surface

~~of said~~ the wiring layer of the circuit card; and

heating ~~said the~~ metal electrode to a temperature at least equal to the lowest ~~one of~~  
~~temperatures~~ temperature at which a eutectic reaction occurs between the first and second  
layers, but lower than the melting point of the first layer, to join the metal electrode to the  
circuit card.

7. (New) A metal electrode and circuit card for being mechanically and electrically  
joined together comprising:

an electrode including

a wiring layer located on a substrate, and

plurality of metallic layers including at least first and second layers,

sequentially disposed on the wiring layer, wherein

the first layer contains tin as a principal constituent, is the metallic  
layer most remote from the substrate, and has an exposed surface for joining to the circuit  
card,

the second metallic layer contacts the first metallic layer and contains a  
metallic element which produces a eutectic reaction with tin, and

the melting point of the first layer is higher than the melting point of  
the second layer; and

a circuit card including a carrier base and a wiring layer including a metal which  
diffuses with tin when heated.

This listing of claims replaces all prior versions, and listings, of claims in the application.